

REMARKS

Claims 1-17 are pending in the application. Reconsideration and allowance of the application including claims 1-17 is respectfully requested.

Request for Interview

Applicants request an opportunity for a telephonic interview with the Examiner prior to the issuance of the next office action. The Examiner is requested to call the undersigned attorney to schedule an interview with the inventor.

Allowable Subject Matter

The Examiner has indicated that claims 16 and 17 stand objected to as being dependent on a rejected base claim but would be allowable if rewritten in independent form. Applicants thank the Examiner for this determination. Since Applicants believe independent claim 15 is allowable as well, applicants have not rewritten claims 16 and 17.

Prior Art Rejections

Claim 15 stands rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. patent number 6,865,410 B2 to Kavet, et al. ("Kavet"). Claims 1-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over US patent number 6,327,495 to Iwabuchi et al. ("Iwabuchi") in view of Kavet. Reconsideration of the rejections is respectfully requested.

The Present Invention

The present invention relates to a device for contacting the skin of a user and detecting or measuring one or more biofeedback signals. In one embodiment, the biofeedback signal is a body own electrical current. A body own electrical current is one that originates in the body of a patient and is not imposed or induced thereon by any outside source. This is explained in the application. The present application incorporates and claims the benefit of U.S. patent application number 09/957,362, filed September 20, 2001. There, it is disclosed that

Recent research has shown that the acupuncture points are characterized by lower electrical resistance and higher conductivity than surrounding skin. This is a body phenomenon that may be readily measured as an indicator of the general health and well being of the patient. This phenomenon may also be used to accurately locate one or more acupuncture points.

(page 1, lines 10-14). Further, the earlier application teaches

biofeedback device 100 is configured to measure an electrical current at an acupuncture point and produce an indication.

(page 4, lines 15-17). Accordingly, the claimed device and method which measures biofeedback signals, in particular an electrical current, at an acupuncture point, provides great benefits for a user.

Kavet fails to disclose detecting or processing a current from a body as in Claim 15

Independent claim 15 recites “electrodes ... configured to detect body emitted electrical current signals...; biofeedback processing circuitry configured to process the body emitted electrical current signals....” The Office Action refers to Kavet column 4, lines 14-17 as disclosing these features. However, these features are missing from the cited passage and are nowhere to be found in Kavet.

Kavet *actually* discloses **applying a current** to a user’s body (column 4, lines 25-27) or **calculating a current** based on **voltage** measurements (column 4, lines 14-17). Kavet does not show, describe or suggest the ability to detect a body emitted current from a body by contacting the skin of the body. The passage in Kavet relied on by the Office Action clearly states that Kavet measures voltage and then current is calculated from the measured voltage using previously determined generic impedance data. Kavet specifically recites use of generic impedance data. That is, Kavet has to use an estimate for impedance or has to make at least two measurements of impedance order to gather all the data needed to then *calculate* a current. Nowhere does Kavet show, describe or even suggest detecting body emitted electrical current signals as recited by claim 15. This limitation is missing from Kavet.

Additionally, it would not be obvious to modify Kavet to obtain the present invention of claim 15. The two devices operate on a completely different principle. Kavet is not even

directed to the problem of detecting a body emitted electrical current signal. Kavet, in order to measure actual impedance, has to introduce an external current into the body. This applied current in itself renders the entire system "invasive" and has the potential to distort all other measurements.

Moreover, claim 15 recites electrodes which are configured to contact the skin and detect the body emitted electrical current signals. In the exemplary embodiment of the claimed cellular telephone device, two electrodes are located directly on the unit held by the operator to reduce electrical interference such as radio waves and the like interfering with current detection. In contrast, Kavet teaches use of long, antennae-like wires attaching the electrodes to the unit, as illustrated in the Kavet drawing and Kavet column 2 lines 65 onwards and column 3 lines 6-7. Such wires may interfere with analog signals and distort any measurements of small signals such as the body emitted electrical current being detected.

No one seeking a solution to the problem of devising a biofeedback device to detect body emitted signals would look to the invasive method of Kavet for a solution. In no way does Kavet render the invention of claim 15 obvious.

Accordingly, it is respectfully submitted that claim 15 includes features nowhere shown in Kavet. Therefore, Kavet cannot anticipate the invention of this claim. Withdrawal of the rejection under 35 U.S.C. § 102(e) of claim 15 is respectfully requested.

Iwabuchi and Kavet fail to disclose all the limitations of Claims 1, 5, 8 and 14

The Office Action asserts that Iwabuchi teaches all limitations of independent claims 1, 5, 8 and 14 except a biofeedback measuring device to contact the skin and detect and measure a body own electrical current. The Office Action further asserts that Kavet discloses the lacking element.

Iwabuchi discloses introduction of current into a body to measure resistance for the specific purpose of measuring body fat, column 5, lines 50-53. Iwabuchi also mentions a blood pressure manometer and a pulse monitor (column 9, lines 32-54). However, neither of these devices detects or measure biofeedback signals such as a body own electrical current.

Kavet does not provide the missing teaching. Kavet clearly states that it measures voltage and that a current value is **calculated** from this voltage measurement using previously determined generic impedance data. Kavet, column 4, lines 14-17. Kavet does not disclose

“detect[ing] and measure[ing] a body own electrical current” (claim 1); “measure[ing] one or more biofeedback signals based on the electrical signal” (claims 5, 8); or “a skin contacting electrode configured to detect a body own electrical current” (claim 14). Kavet does not disclose the capability of detecting or measuring a body own electrical current, that is, a current that originates *within the body*. Instead, Kavet has to measure a voltage and then calculate the current flow using previously obtained impedance data. Even to obtain the impedance data, Kavet selects a known current value and “runs a current with that *known* value through the living body,” column 4, lines 24-27, *emphasis added*. Like Iwabuchi, Kavet’s device lacks the ability to detect or measure a current originating in the body.

Moreover, no artisan seeking to address the problem solved by the invention of claims 1, 5, 8 and 14 would look to either Iwabuchi or Kavet. Both of these references disclose applying a current to a body and making a subsequent measurement. However, the claimed invention seeks to detect a biofeedback signal such as a current which originates in the body. Applying a signal as taught by Iwabuchi and Kavet would create interference and has the potential to distort measurement of other signals. The effect of introducing signals in the manner taught by Iwabuchi and Kavet is not insignificant: commercially available “fat measurement scales” typically include a warning to pregnant woman not to use them.

Accordingly, Iwabuchi and Kavet do not render the invention of claims 1-14 obvious. A skilled artisan would not look to these invasive technologies for detecting or measuring a body originated signal. Even if it would be apparent to look to these references, they fail to disclose all the limitations of independent claims 1, 5, 8 and 14. Claims 1, 8, 14 and 15 each include limitations nowhere shown, described or suggested by these references. Therefore, withdrawal of the rejections of these claims under 35 U.S.C. § 103(a) is respectfully requested.

Conclusion

For the foregoing reasons, Applicants respectfully submit that the presently amended claims are patentable and thus request allowance of these claims.

If, for any reason, the Examiner feels that the above amendments and remarks do not put the claims in condition for allowance, the undersigned attorney can be reached at (312) 321-4288 to resolve any remaining issues.

Respectfully submitted,

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